

Schneider Series Service Manual

172PNN21022

1. Description

Range of product

2. Specifications

Specification	Value
Manufacturer	Schneider Electric
Product	Type Modbus Plus Adapter Module
Product	Line Modicon Momentum
Part	Number 172PNN21022
EAN	3595861147393
Weight	1.00 lbs (0.45 kg)
Electrical	Connection Type One 9-pin D-shell Modbus Plus connector
Protection	Class IP20
Coating	Type Conformal coating
Rated	Supply Voltage 5 Volts DC
Status	Indicators One communication LED
Current	Consumption 200 to 350 milliamperes at 24 Volts DC
Ambient	Operating Temperature 0 to 60°C (in a non-condensing environment)
Storage	Temperature -40 to 85°C (in a non-condensing environment)
Communication	Protocol Modbus Plus
Operating	Altitude Less than 6,561 feet (2,000 meters)
Battery	Type Lithium battery
Battery	Life Span Approximately 5 years

3. Product Information

Range of product
Modicon Momentum automation platform

Product or component type
Modbus Plus option adaptor

Number of port
1

Communication port protocol
Modbus Plus

Communication port type
Single

Complementary
[Us] rated supply voltage
5 V DC

Input voltage tolerance
+/- 5 %

Supply
Via I/O base

Clock drift
+/- 13 s/day accuracy

Battery type
Lithium battery - autonomy: < 30 day after the battery low indication at 40 °C

Battery size
2/3 AA

Battery life
5 year(s)

Electrical connection
1 connector D-shell with 9 pins for Modbus Plus connection

Material
Lexan

Marking
CE

Local signalling
1 LED for communication

Current consumption
<= 350 mA at 24 V DC
200 mA at 24 V DC

Height
25 mm

Width
143.1 mm

Depth
60.06 mm

Module format
Standard

Net weight
85.05 g

Environment
Dielectric strength
500 V DC

Standards
IEC 529

Product certifications
UL
CSA
NEMA 250 type 1

IP degree of protection
IP20 conforming to IEC 529

Protective treatment
TC

Shock resistance

+/- 15 gn 11 ms half sine wave acceleration

Vibration resistance

1 gn (f = 57...150 Hz)

Amplitude of sinusoidal vibration

0.075 mm 10...57 Hz

Resistance to electrostatic discharge

4 kV contact conforming to IEC 801-2

8 kV on air conforming to IEC 801-2

Resistance to electromagnetic fields

10 V/m 80...1000 MHz conforming to IEC 801-3

Ambient air temperature for operation

0...60 °C

Ambient air temperature for storage

-40...85 °C

Relative humidity

5...95 % without condensation

Operating altitude

<= 2000 m

Packing Units

Unit Type of Package 1

PCE

Number of Units in Package 1

1

Package 1 Height

7.0 cm

Package 1 Width

11.0 cm

Package 1 Length

21.0 cm

Package 1 Weight

211.0 g

The 172PNN21022 from Schneider Electric is a Modbus Plus Adapter Module designed for precise connectivity and control. This device operates on a supply voltage of 5 Volts DC and incorporates a 9-pin D-shell connector for users.

Technical specifications for 172PNN21022

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Product Type Modbus Plus Adapter Module

Product Line Modicon Momentum

Part Number 172PNN21022

EAN 3595861147393

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Electrical Connection Type One 9-pin D-shell Modbus Plus connector

Protection Class IP20

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Rated Supply Voltage 5 Volts DC

Status Indicators One communication LED

Current Consumption 200 to 350 milliamperes at 24 Volts DC

Ambient Operating Temperature 0 to 60°C (in a non-condensing environment)

Storage Temperature -40 to 85°C (in a non-condensing environment)

Communication Protocol Modbus Plus

Operating Altitude Less than 6,561 feet (2,000 meters)

Battery Type Lithium battery

Battery Life Span Approximately 5 years

Description

The Schneider Electric Modicon Momentum 172PNN21022 functions as a Modbus Plus Adapter Module, facilitating communication in various systems. It features a compact design, measuring 0.98 inches in height, 5.63 inches in width, and 2.37 inches in depth. Weighing only 0.19 pound (0.085 kilogram), it is lightweight and easy to integrate into existing installations.

This device is equipped with a 9-pin D-shell Modbus Plus connector, making connections straightforward. The assembly requires a rated supply voltage of 5 Volts DC to operate efficiently. Current consumption ranges from 200 to 350 milliamperes when supplied with 24 Volts DC, ensuring sufficient energy for its functions.

The product boasts a conformal coating that enhances its durability in various operating environments, though its protection class is rated at IP20, indicating it is best used within controlled settings. Users can monitor the communication status via a single LED indicator on the device.

Operating ambient temperatures range from 0 to 60°C, provided that conditions remain non-condensing. For storage, this module can handle temperatures between -40 and 85°C, making it capable of withstanding diverse environmental conditions. When considering altitude, the operating altitude is limited to under 6,561 feet (2,000 meters), adhering to standard operational boundaries.

Additionally, the 172PNN21022 contains a lithium battery, which has an estimated lifespan of approximately 5 years, assuring reliable long-term functionality. Overall, this module is engineered to enhance Modbus Plus communication under specified conditions.